

SEP 2 4 2003

CRF Errors Edited by the STIC Systems 1600/2900 Branch

_	acid/amino acid numbe	rs/text in cases where	e the sequence
text "wrapped" to	the next line		NTEF
	•	L	
Corrected the SEQ	ID NO. Sequence nun	nbers edited were:	
	<u> </u>		
Insartad or correct	ted a nucleic number at	the end of a nucleic l	ine SEO ID
NO's edited:	icu a nucicie numbei at	the chu of a nucleic i	inc. SEQ ID
D.1.4.1		44.	
Deleted: inval	id beginning/end-of-file	text; page numl	pers
Deleted: inval	id beginning/end-of-file	text; page numl	oers
	id beginning/end-of-file ' y headings/numeric ide		oers
			oers
Inserted mandator	y headings/numeric ide	ntifiers, specifically:	
Inserted mandator		ntifiers, specifically:	
Inserted mandator	y headings/numeric ide	ntifiers, specifically:	

Revised 09/09/2003



1600

RAW SEQUENCE LISTING

DATE: 09/22/2003

PATENT APPLICATION: US/09/165,546D

TIME: 15:41:31

Input Set : A:\PTO.PG.txt

Output Set: N:\CRF4\09152003\I165546D.raw

SEQUENCE LISTING

```
1 (1) GENERAL INFORMATION:
C-->
             (i) APPLICANT: Knuth, Alexader; Jager, Elke; Chen, Yao, Scanlan, Matt;
                            Gure, Ali, Old, Lloyd, Ritter, Gerd
            (ii) TITLE OF INVENTION: ISOLATED PEPTIDES CORRESPONDING TO AMINO ACID
      6
                                      SEQUENCES OF NY-ESO-1, WHICH BIND TO MHC CLASS I AND MHC
CLASS II MOLECULES, AND
                                      USES THEREOF
     10
           (iii) NUMBER OF SEQUENCES: 15
            (iv) CORRESPONDENCE ADDRESS:
     12
                   (A) ADDRESSEE: FULBRIGHT & JAWORSKI LLP
     13
     14
                   (B) STREET: 666 Fifth Avenue
     15
                   (C) CITY: New York City
     16
                   (D) STATE: New York
     17
                  (E) COUNTRY: USA
                  (F) ZIP: 10158
     20
             (V) COMPUTER READABLE FORM:
     21
                   (A) MEDIUM TYPE: Diskette, 3.5 inch, 144 kb storage
     22
                  (B) COMPUTER: IBM
     23
                  (C) OPERATING SYSTEM: PC-DOS
     24
                  (D) SOFTWARE: Word
     26
            (vi) CURRENT APPLICATION DATA:
C--> 27
                  (A) APPLICATION NUMBER: US/09/165,546D
C--> 28
                  (B) FILING DATE: 02-Oct-1998
     29
                  (C) CLASSIFICATION: 530
C--> 39
           (vii) PRIOR APPLICATION DATA:
     32
                  (A) APPLICATION NUMBER: 09/062,422
     33
                  (B) FILING DATE: April 17, 1998
     36
                  (A) APPLICATION NUMBER: 08/937,263
     37
                  (B) FILING DATE: September 15, 1997
                  (A) APPLICATION NUMBER: US 08/725,182
     40
     41
                  (B) FILING DATE: October 3, 1996
     43
          (viii) ATTORNEY/AGENT INFORMATION:
     44
                  (A) NAME: Hanson, Norman D.
     45
                  (B) REGISTRATION NUMBER: 30,946
     46.
                  (C) REFERENCE/DOCKET NUMBER: LUD 2166.4 CIP (09807811)
     48
            (ix) TELECOMMUNICATION INFORMATION:
     49
                  (A) TELEPHONE: (212) 318-3000
                  (B) TELEFAX: (212) 318-3400
     52 (2) INFORMATION FOR SEQ ID NO: 1:
     53
             (i) SEQUENCE CHARACTERISTICS:
     54
                  (A) LENGTH: 752 base pairs
     55
                  (B) TYPE: nucleic acid
```

(C) STRANDEDNESS: double

RAW SEQUENCE LISTING DATE: 09/22/2003 PATENT APPLICATION: US/09/165,546D TIME: 15:41:31

Input Set : A:\PTO.PG.txt

57 58																
60	ATC	CTCG	rgg (GCCC!	rgac(ст то	CTCT	CTGA	G AG	CCGG	GCAG	AGG	CTCC	GGA (GCC	53
62	ATG	CAG	GCC	GAA	GGC	CGG	GGC	ACA	GGG	GGT	TCG	ACG	GGC	GAT	GCT	98
63	Met	Gln	Ala	Glu	Gly	Arg	Gly	Thr	Gly	Gly	Ser	Thr	Gly	Asp	Ala	
64					5					10					15	
66	GAT	GGC	CCA	GGA	GGC	CCT	GGC	ATT	CCT	GAT	GGC	CCA	GGG	GGC	AAT	143
67	Asp	Gly	Pro	Gly	Gly	Pro	Gly	Ile	Pro	Asp	Gly	Pro	Gly	Gly	Asn	
68					20					25					30	
70	GCT	GGC	GGC	CCA	GGA	GAG	GCG	GGT	GCC	ACG	GGC	GGC	AGA	GGT	CCC	188
71	Ala	Gly	Gly	Pro	Gly	Glu	Ala	Gly	Ala	Thr	Gly	Gly	Arg	Ala	Pro	
72					35					40					45	
74	CGG	GGC	GCA	GGG	GCA	GCA	AGG	GCC	TCG	GGG	CCG	GGA	GGA	GGC	GCC	233
	Arg	Gly	Ala	Gly	Ala	Ala	Arg	Ala	Ser	_	Pro	Gly	Gly	Gly	Ala	
76					50					55					60	
														GGA		278
	Pro	Arg	Gly	Pro		Gly	Gly	Ala	Ala		Gly	Leu	Asn	Gly	_	
80					65					70					75	
82														GAG		323
83	Cys	Arg	Cys	GLY		Arg	GLY	Pro	GIu		Arg	Leu	Leu	Glu		
84	m	ama	222	* ma	80	mma	000		000	85	<i>a</i> , ,		a. a	ama	90	260
86														CTG		368
87	Tyr	ьeu	Ата	мет		Pne	Ата	Thr	Pro		GIU	Ата	GIU	Leu		
88	aaa	100	3.00	OTIC.	95	CAC	CAM	ccc	003	100	C III III	000	CITIC	003	105	412
														CCA		413
92	AIG	ALG	ser	neu	110	GIII	ASP	нта	PIO	115	Leu	PIO	Vai	Pro	G19 120	
	CTC	CTT	CTC	A A C		mmC	አ ርጥ	CTC	Tr.C.C		አአሮ	א ידי א	CTC	ACT		458
														Thr		4.50
96	VUI	пец	пец	цуз	125	rne	1111	Vai	Ser	130	KSII	116	Бец	1111	135	
	CGA	CTG	ΔСТ	ССТ		GAC	CAC	CGC	CAA		CAG	CTC	ጥርር	ATC		503
														Ile		303
10	_				14(_		9	02	145			501		150	
		C TG1	CTO	CAC			TCC	CTC	TTC			ATC	C ACC	CAC	TGC	548
															Cys	
10		-			155					160	_	•			165	
10	6 TT3	r cte	CCC	GTO	TT1	TTC	GC2	CAC	CC1	r ccc	TC	A GGO	G CAC	G AGO	GC	593
10	7. Phe	e Leu	ı Pro	va]	l Phe	e Lei	ı Ala	a Glr	n Pro	Pro	Sei	c Gly	/ Glr	n Arg	g Arg	
10					170					175				Ī	180	
110	TAA	AGCCC	CAGC	CTG	GCGCC	CCC 3	TCCI	[AGG]	C A	rGCC1	CCTC	CCC	CTAGO	GAA		643
11	l TGC	STCCC	CAGC	ACG	AGTGC	GCC F	AGTTO	CATTO	GT GC	GGGG	CTG	A TTC	STTTC	STCG		693
11:	CTC	GAGG	AGG	ACG	GCTT <i>I</i>	CA I	CTTI	GTTT	C TO	STAG <i>I</i>	CAAA	' AA	AACTO	SAGC		743
11:	3 TAC	CGAAA	AA				•									752
11!	5 (2)															
110	-	(i	•					RISTI								
11'			(ise p		3						
118			,					e aci						•		
119								sir	ngle							
120	J		((D) 1	OPOI	.OGY :	lir	near								

DATE: 09/22/2003

```
TIME: 15:41:31
                     PATENT APPLICATION: US/09/165,546D
                     Input Set : A:\PTO.PG.txt
                     Output Set: N:\CRF4\09152003\I165546D.raw
             (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
     123 CACACAGGAT CCATGGATGC TGCAGATGCG G
                                                                        31
     126 (2) INFORMATION FOR SEQ ID NO: 3:
             (i) SEQUENCE CHARACTERISTICS:
     127
     128
                  (A) LENGTH: 32 base pairs
     129
                   (B) TYPE: nucleic acid
     130
                   (C) STRANDEDNESS: single
     131
                   (D) TOPOLOGY: linear
     132
             (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
     134 CACACAAAGC TTGGCTTAGC GCCTCTGCCC TG
                                                                      . 32
     137 (2) INFORMATION FOR SEQ ID NO: 4:
            (i) SEQUENCE CHARACTERISTICS:
     139
                   (A) LENGTH: 11 amino acids
     140
                   (B) TYPE: amino acid
                   (D) TOPOLOGY: linear
     141
     142
             (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
     144 Ser Leu Leu Met Trp Ile Thr Gln Cys Phe Leu
                          5
     145
     148 (2) INFORMATION FOR SEQ ID NO: 5:
     149
           (i) SEQUENCE CHARACTERISTICS:
     150
                  (A) LENGTH: 9 amino acids
     151
                   (B) TYPE: amino acid
     152
                  (D) TOPOLOGY: linear
             (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
     155 Ser Leu Leu Met Trp Ile Thr Gln Cys
                         5
     159 (2) INFORMATION FOR SEQ ID NO: 6:
             (i) SEQUENCE CHARACTERISTICS:
     161
                   (A) LENGTH: 9 amino acids
                  (B) TYPE: amino acid
     162
    163
                  (D) TOPOLOGY: linear
             (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
    166 Gln Leu Ser Leu Leu Met Trp Ile Thr
    167
                        5 -
     168 (2) INFORMATION FOR SEQ ID NO: 7:
    169 (i) SEQUENCE CHARACTERISTICS:
    170
                  (A) LENGTH: 10 amino acids
                  (B) TYPE: amino acid
    171
    172
                  (D) TOPOLOGY: linear
    173
            (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
    175 Leu Leu Met Trp Ile Thr Gln Cys Phe Leu
                         5
    179 (2) INFORMATION FOR SEQ ID NO: 8:
C--> 180
             (i) SEQUENCE CHARACTERISTICS:
    181
                   (A) LENGTH: 18 amino acids
    182
                   (B) TYPE: amino acid
    183
                   (D) TOPOLOGY: linear
             (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
    186 Ala Ala Asp His Arg Gln Leu Gln Leu Ser Ile Ser Ser Cys Leu Gln
```

RAW SEQUENCE LISTING

DATE: 09/22/2003

```
PATENT APPLICATION: US/09/165,546D
                                                         TIME: 15:41:31
                Input Set : A:\PTO.PG.txt
                Output Set: N:\CRF4\09152003\I165546D.raw
187
                                          10
                                                              15
188 Gln Leu
191 (2) INFORMATION FOR SEQ ID NO: 9:
        (i) SEQUENCE CHARACTERISTICS:
193
              (A) LENGTH: 18 amino acids
194
              (B) TYPE: amino acid
195
              (D) TOPOLOGY: linear
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
198 Val Leu Leu Lys Glu Phe Thr Val Ser Gly Asn Ile Leu Thr Ile Arg
199
                     5
                                         10
200 Leu Thr
203 (2) INFORMATION FOR SEQ ID NO: 10:
        (i) SEQUENCE CHARACTERISTICS:
205
              (A) LENGTH: 18 amino acids
206
              (B) TYPE: amino acid
207
              (D) TOPOLOGY: linear
208
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
210 Pro Leu Pro Val Pro Gly Val Leu Leu Lys Glu Phe Thr Val Ser Gly
211
                     5
                                         10
212 Asn Ile
215 (2) INFORMATION FOR SEQ ID NO: 11:
216
         (i) SEQUENCE CHARACTERISTICS:
217
              (A) LENGTH: 18 amino acids .
218
              (B) TYPE: amino acid
219
              (D) TOPOLOGY: linear
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
222 Gly Ala Ala Ser Gly Leu Asn Gly Cys Cys Arg Cys Gly Ala Arg Gly
223
                                          10
224 Pro Glu
227 (2) INFORMATION FOR SEQ ID NO: 12:
228
         (i) SEQUENCE CHARACTERISTICS:
229
              (A) LENGTH: 18 amino acids
230
              (B) TYPE: amino acid
231
              (D) TOPOLOGY: linear
232
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
234 Ser Arg Leu Leu Glu Phe Tyr Leu Ala Met Pro Phe Ala Thr Pro Met
235
                                         10
236 Glu Ala
239 (2) INFORMATION FOR SEQ ID NO: 13:
240
         (i) SEQUENCE CHARACTERISTICS:
241
              (A) LENGTH: 18 amino acids
242
              (B) TYPE: amino acid
243
              (D) TOPOLOGY: linear
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
246 Thr Val Ser Gly Asn Ile Leu Thr Ile Arg Leu Thr Ala Ala Asp His
247
                                         10
248 Arg Gln
251 (2) INFORMATION FOR SEQ ID NO: 14:
        (i) SEQUENCE CHARACTERISTICS:
```

RAW SEQUENCE LISTING

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/165,546D

DATE: 09/22/2003 TIME: 15:41:31

Input Set : A:\PTO.PG.txt

```
(A) LENGTH: 6 amino acids
253
              (B) TYPE: amino acid
254
255
              (D) TOPOLOGY: linear
256
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:
258 Leu Leu Met Trp Ile Thr
                     5
259
262 (2) INFORMATION FOR SEQ ID NO: 15:
        (i) SEQUENCE CHARACTERISTICS:
264
              (A) LENGTH: 180 amino acids
              (B) TYPE: amino acid
265
              (D) TOPOLOGY: linear
266
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15
267
269 Met Gln Ala Glu Gly Arg Gly Thr Gly Gly Ser Thr Gly Asp Ala
                                        10
271 Asp Gly Pro Gly Gly Pro Gly Ile Pro Asp Gly Pro Gly Gly Asn
272
                    20
273 Ala Gly Gly Pro Gly Glu Ala Gly Ala Thr Gly Gly Arg Gly Pro
275 Arg Gly Ala Gly Ala Ala Arg Ala Ser Gly Pro Gly Gly Ala
                    50
                                         55
277 Pro Arg Gly Pro His Gly Gly Ala Ala Ser Gly Leu Asn Gly Cys
                    65
                                        70
279 Cys Arg Cys Gly Ala Arg Gly Pro Glu Ser Arg Leu Leu Glu Phe
280
                    80
281 Tyr Leu Ala Met Pro Phe Ala Thr Pro Met Glu Ala Glu Leu Ala
282
                    95
                                        100
283 Arg Arg Ser Leu Ala Gln Asp Ala Pro Pro Leu Pro Val Pro Gly
                    110
                                        115
285 Val Leu Leu Lys Glu Phe Thr Val Ser Gly Asn Ile Leu Thr Ile
                    125
                                        130
287 Arg Leu Thr Ala Ala Asp His Arg Gln Leu Gln Leu Ser Ile Ser
288
                                        145
                                                             150
289 Ser Cys Leu Gln Gln Leu Ser Leu Leu Met Trp Ile Thr Gln Cys
                    155
                                        160
291 Phe Leu Pro Val Phe Leu Ala Gln Pro Pro Ser Gly Gln Arg Arg
                    170
                                        175
```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/165,546D

DATE: 09/22/2003 TIME: 15:41:32

Input Set : A:\PTO.PG.txt

Output Set: N:\CRF4\09152003\I165546D.raw

L:3 M:220 C: Keyword misspelled or invalid format, [(i) APPLICANT:]

L:27 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]

L:28 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]

L:31 M:220 C: Keyword misspelled or invalid format, [(vii) PRIOR APPLICATION DATA:]
L:180 M:220 C: Keyword misspelled or invalid format, [(i) SEQUENCE CHARACTERISTICS:]



1600

RAW SEQUENCE LISTING

DATE: 09/22/2003

PATENT APPLICATION: US/09/165,546D

TIME: 15:37:06

Input Set : A:\PTO.PG.txt

```
SEQUENCE LISTING
      1 (1) GENERAL INFORMATION:
             (i) APPLICANT: Knuth, Alexader; Jager, Elke; Chen, Yao, Scanlan, Matt;
                            Gure, Ali, Old, Lloyd, Ritter, Gerd
            (ii) TITLE OF INVENTION: ISOLATED PEPTIDES CORRESPONDING TO AMINO ACID
      6
      7
                                     SEQUENCES OF NY-ESO-1, WHICH BIND TO MHC CLASS I AND MHC
CLASS II MOLECULES, AND
      8
                                      USES THEREOF
     10
           (iii) NUMBER OF SEQUENCES: 15
     12
            (iv) CORRESPONDENCE ADDRESS:
     13
                  (A) ADDRESSEE: FULBRIGHT & JAWORSKI LLP
                  (B) STREET: 666 Fifth Avenue
     14
                                                                 Does Not Comply
     15
                  (C) CITY: New York City
                                                                 Corrected Diskette Needed
     16
                  (D) STATE: New York
     17
                  (E) COUNTRY: USA
                  (F) ZIP: 10158
     18
     20
             (v) COMPUTER READABLE FORM:
     21
                  (A) MEDIUM TYPE: Diskette, 3.5 inch, 144 kb storage
     22
                  (B) COMPUTER: IBM
     23
                  (C) OPERATING SYSTEM: PC-DOS
     24
                  (D) SOFTWARE: Word
     26
            (vi) CURRENT APPLICATION DATA:
C--> 27
                  (A) APPLICATION NUMBER: US/09/165,546D
C--> 28
                  (B) FILING DATE: 02-Oct-1998
     29
                  (C) CLASSIFICATION: 530
C--> 39
           (vii) PRIOR APPLICATION DATA:
     32
                  (A) APPLICATION NUMBER: 09/062,422
     33
                  (B) FILING DATE: April 17, 1998
     36
                  (A) APPLICATION NUMBER: 08/937,263
     37
                  (B) FILING DATE: September 15, 1997
     40
                  (A) APPLICATION NUMBER: US 08/725,182
                  (B) FILING DATE: October 3, 1996
     41
     43
          (viii) ATTORNEY/AGENT INFORMATION:
     44
                  (A) NAME: Hanson, Norman D.
     45
                  (B) REGISTRATION NUMBER: 30,946
                  (C) REFERENCE/DOCKET NUMBER: LUD 2166.4 CIP (09807811)
    46
     48
            (ix) TELECOMMUNICATION INFORMATION:
     49
                  (A) TELEPHONE: (212) 318-3000
                  (B) TELEFAX: (212) 318-3400
     50
     52 (2) INFORMATION FOR SEQ ID NO: 1:
    53
             (i) SEQUENCE CHARACTERISTICS:
    54
                  (A) LENGTH: 752 base pairs
    55
                  (B) TYPE: nucleic acid
                  (C) STRANDEDNESS: double
```

RAW SEQUENCE LISTING DATE: 09/22/2003 PATENT APPLICATION: US/09/165,546D TIME: 15:37:06

Input Set : A:\PTO.PG.txt

	57	7 (D) TOPOLOGY: linear															
	58																
	60	ATCCTCGTGG GCCCTGACCT TCTCTCTGAG AGCCGGGCAG AGGCTCCGGA GCC												53			
	62	ATG	CAG	GCC	GAA	GGC	CGG	GGC	ACA	GGG	GGT	TCG	ACG	GGC	GAT	GCT	98
	63	Met	Gln	Ala	Glu	Gly	Arg	Gly	Thr	Gly	Gly	Ser	Thr	Gly	Asp		
	64					5					10					15	
		GAT															143
		Asp	Gly	Pro	Gly	_	Pro	Gly	Ile	Pro	_	Gly	Pro	Gly	Gly		
	68	000	000	000	007	20	07.0	000	o o m	000	25	000	000	7.07	0.05	30	100
T.T. >		GCT													,	•	188
W>	72	Ala	стА	GIA	Pro	35	GIU	Ата	СТА	Ата	40	GIY	стА	Arg	a 1 –	45	
		CGG	GGC	GCA	GGG		GCA	AGG	GCC	TCG		CCG	GGA	GGA			233
		Arg															200
•	76	9	011		0_1	50		9		-	55		0-1	0-1	011	60	
	78	CCG	CGG	GGT	CCG	CAT	GGC	GGC	GCG	GCT	TCA	GGG	CTG	AAT	GGA	TGC	278
	79	Pro	Arg	Gly	Pro	His	Gly	Gly	Ala	Ala	Ser	Gly	Leu	Asn	Gly	Cys	
	80					65					70 .					75	
	82	TGC	AGA	TGC	GGG	GCC	AGG	GGG	CCG	GAG	AGC	CGC	CTG	CTT	GAG	TTC	323
	83	Cys	Arg	Cys	Gly	Ala	Arg	Gly	Pro	Glu	Sen	Arg	Leu	Leu	Glu	Phe	
M>						80				(80	85				90	
		TAC															368
	88	Tyr	Leu	Ата	Met	Pro 95	Phe	Ата	Thr	Pro		Glu	Ата	GIU	Leu		
		CGC	7 CC	7 CC	CTC		CAC	CNT	CCC	CCA	100	C_{III}	CCC	CTC	CCA	105	413
		Arg								*							413
	92	1119	TIL G	DCI	пси	110	OIII	2150	7114	110	115		110	var		120	
		GTG	CTT	CTG	AAG		TTC	ACT	GTG	TCC		AAC	ATA	CTG			458
	95	Val	Leu	Leu	Lys	Glu	Phe	Thr	Val	Ser	Gly	Asn	Ile	Leu	Thr	Ile	
	96				- ,	125					130					135	
		CGA															503
		Arg	Leu	Thr	Ala		_	His	Arg	Gln			Leu	Ser	Ile		
	100		,			140					145					150	F 40
																TGC	548
	103		· Cys	з тег	ı Gli	155		ı sei	r rer	і теі	и мет 160	_) TT6	e Tni	: GII	n Cys 165	
			י כייינ	- 000	Ст(2 601	r CA(ב ככיו			A GGC	- CAC	a Acc	G CGC	593
																g Arg	333
	108				, , ,	170			. 011		175		. 01	, 01.		180	
		TAP	GCCC	CAGC	CTGC			TCC	ragg?	C A			ccc	CTAGO	GAA		643
		. TGG															693
	112	CTO	GAGC	SAGG	ACGO	GCTT <i>I</i>	ACA 1	GTTT	GTT	C TO	STAGA	raaa/	: AA	AACTO	SAGC		743
		TAC												•			752
		(2)					R SEÇ										
	116		(j				CHARA										
	117						TH: 3		_		5						
	118						nuc										
	119 120						IDEDN LOGY:			igre							
•	120	,		(נ נט	.OPUI	JOGI:	ΤTΙ	iedľ								

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/165,546D

DATE: 09/22/2003 TIME: 11:05:12

Input Set : A:\pto.yf.txt

	263	3 (i) SEQUENCE CHARACTERISTICS:														
	264	(A) LENGTH: 180 amino acids														
	265	(B) TYPE: amino acid														
	266	(D) TOPOLOGY: linear														
	267		(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15													
	269	Met	Gln	Ala	Glu	Gly	Arg	Gly	Thr	Gly	Gly	Ser	Thr	Gly	Asp	Ala
	270					5					10					15
	271	Asp	Gly	Pro	Gly	Gly	Pro	Gly	Ile	Pro	Asp	Gly	Pro	Gly	Gly	Asn
	272	_	_		_	20		_			25	_				30
	273	Ala	Gly	Gly	Pro	Gly	Glu	Ala	Gly	Ala	Thr	Gly	Gly	Arg	Gly	Pro
	274		_	_		35			-		40					45
	275	Arg	Gly	Ala	Gly	Ala	Ala	Arg	Ala	Ser	Gly	Pro	Gly	Gly	Gly	Ala
	276					50					55					60
	277	Pro	Arg	Gly	Pro	His	Gly	Gly	Ala	Ala	Ser	Gly	Leu	Asn	Gly	Cys
	278					65		·			70					75
	279	Cys	Arg	Cys	Gly	Ala	Arg	Gly	Pro	Glu	Ser	Arg	Leu	Leu	Glu	Phe
	280					80					85					90
	281	Tyr	Leu	Ala	Met	Pro	Phe	Ala	Thr	Pro	Met	Glu	Ala	Glu	Leu	Ala
	282					95					100					105
	283	Arg	Arg	Ser	Leu	Ala	Gln	Asp	Ala	Pro	Pro	Leu	Pro	Val	Pro	Gly
	284	•				110					115					120
	285	Val	Leu	Leu	Lys	Glu	Phe	Thr	Val	Ser	Gly	Asn	Ile	Leu	Thr	
	286					125					130					135
	287	Arg	Leu	Thr	Ala		Asp	His	Arg	Gln		Gln	Leu	Ser	Ile	
	288					140					145					150
		Ser	Cys	Leu	Gln		Leu	Ser	Leu	Leu		Trp	Ile	Thr	Gln	_
	290					155					160					165
		Phe	Leu	Pro	Val		Leu	Ala	Gln	Pro		Ser	Gly	Gln	Arg	_
	292		,			170			i		17.5					180
E>		/ - 6-		_			7	اماء	\mathcal{A}_{\sim}	2						
	294	LUD	466.	4-SI	EQ.do	c 1	/	06	CIC	_			*			

DATE: 09/22/2003

TIME: 15:37:06

Input Set : A:\PTO.PG.txt Output Set: N:\CRF4\09222003\I165546D.raw 121 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2: 123 CACACAGGAT CCATGGATGC TGCAGATGCG G 31 126 (2) INFORMATION FOR SEQ ID NO: 3: 127 (i) SEQUENCE CHARACTERISTICS: 128 (A) LENGTH: 32 base pairs (B) TYPE: nucleic acid 129 130 (C) STRANDEDNESS: single 131 (D) TOPOLOGY: linear 132 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3: 32 134 CACACAAAGC TTGGCTTAGC GCCTCTGCCC TG 137 (2) INFORMATION FOR SEQ ID NO: 4: (i) SEQUENCE CHARACTERISTICS: 138 (A) LENGTH: 11 amino acids 139 (B) TYPE: amino acid 140 (D) TOPOLOGY: linear 141 142 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4: 144 Ser Leu Leu Met Trp Ile Thr Gln Cys Phe Leu 5 148 (2) INFORMATION FOR SEQ ID NO: 5: 149 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 9 amino acids 150 151 (B) TYPE: amino acid 152 (D) TOPOLOGY: linear 153 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5: 155 Ser Leu Leu Met Trp Ile Thr Gln Cys - 5 159 (2) INFORMATION FOR SEQ ID NO: 6: 160 (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 9 amino acids 161 162 (B) TYPE: amino acid 163 (D) TOPOLOGY: linear 164 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6: 166 Gln Leu Ser Leu Leu Met Trp Ile Thr 5 168 (2) INFORMATION FOR SEQ ID NO: 7: (i) SEQUENCE CHARACTERISTICS: 170 . . (A) LENGTH: 10 amino acids 171 (B) TYPE: amino acid 172 (D) TOPOLOGY: linear (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7: 175 Leu Leu Met Trp Ile Thr Gln Cys Phe Leu 176 5 179 (2) INFORMATION FOR SEQ ID NO: 8: C--> 180 (i) SEQUENCE CHARACTERISTICS: 181 (A) LENGTH: 18 amino acids 182 (B) TYPE: amino acid 183 (D) TOPOLOGY: linear 184 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8: 186 Ala Ala Asp His Arg Gln Leu Gln Leu Ser Ile Ser Ser Cys Leu Gln

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/165,546D

RAW SEQUENCE LISTING DATE: 09/22/2003 PATENT APPLICATION: US/09/165,546D TIME: 15:37:06

Input Set : A:\PTO.PG.txt

```
187
                                                             15
                                          10
188 Gln Leu
191 (2) INFORMATION FOR SEQ ID NO: 9:
         (i) SEQUENCE CHARACTERISTICS:
193
              (A) LENGTH: 18 amino acids
              (B) TYPE: amino acid
194
195
              (D) TOPOLOGY: linear
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
198 Val Leu Leu Lys Glu Phe Thr Val Ser Gly Asn Ile Leu Thr Ile Arg
199
                                        10
200 Leu Thr
203 (2) INFORMATION FOR SEQ ID NO: 10:
204
         (i) SEQUENCE CHARACTERISTICS:
205
              (A) LENGTH: 18 amino acids
206
              (B) TYPE: amino acid
              (D) TOPOLOGY: linear
207
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
210 Pro Leu Pro Val Pro Gly Val Leu Leu Lys Glu Phe Thr Val Ser Gly
211
                                         10
212 Asn Ile
215 (2) INFORMATION FOR SEQ ID NO: 11:
216
         (i) SEQUENCE CHARACTERISTICS:
217
              (A) LENGTH: 18 amino acids
218
              (B) TYPE: amino acid
219
              (D) TOPOLOGY: linear
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
222 Gly Ala Ala Ser Gly Leu Asn Gly Cys Cys Arg Cys Gly Ala Arg Gly
223
                    5
                                          10
224 Pro Glu
227 (2) INFORMATION FOR SEQ ID NO: 12:
       (i) SEQUENCE CHARACTERISTICS:
229
              (A) LENGTH: 18 amino acids
230
              (B) TYPE: amino acid
231
              (D) TOPOLOGY: linear
232
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
234 Ser Arg Leu Leu Glu Phe Tyr Leu Ala Met Pro Phe Ala Thr Pro Met
235
                                         10
236 Glu Ala
239 (2) INFORMATION FOR SEQ ID NO: 13:
        (i) SEQUENCE CHARACTERISTICS:
241
              (A) LENGTH: 18 amino acids
242
              (B) TYPE: amino acid
              (D) TOPOLOGY: linear
243
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
244
246 Thr Val Ser Gly Asn Ile Leu Thr Ile Arg Leu Thr Ala Ala Asp His
247
                                         10
248 Arg Gln
251 (2) INFORMATION FOR SEQ ID NO: 14:
252
         (i) SEQUENCE CHARACTERISTICS:
```

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/165,546D

DATE: 09/22/2003 TIME: 15:37:06

Input Set : A:\PTO.PG.txt

253 254 255 256 258	(B) TYPE: amino acid (D) TOPOLOGY: linear (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14: Leu Met Trp Ile Thr														
259 262	(2)	TNE	5 INFORMATION FOR SEQ ID NO: 15:												
263	(2)		(i) SEQUENCE CHARACTERISTICS:												
264		(A) LENGTH: 180 amino acids													
265		(B) TYPE: amino acid													
266		(D) TOPOLOGY: linear													
267		(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15													
269	Met	Gln							Gly				Gly	Asp	Ala
270					5					10					15
271	Asp	Gly	Pro	Gly	Gly	Pro	Gly	Ile	Pro	Asp	Gly	Pro	Gly	Gly	Asn
272					20					25					30
	Ala	Gly	Gly	Pro	_	Glu	Ala	Gly	Ala		Gly	Gly	Arg	Gly	
274					35					40					45
	Arg	Gly	Ala	Gly		Ala	Arg	Ala	Ser		Pro	Gly	Gly	Gly	
276	_		~ 1	_	50	61	0 3		7.7	55	61	.	70	0 1	60
	Pro	Arg	GTA	Pro	H1S	GLY	GLY	Ата	Ala	Ser 70	GLY	ьeu	Asn	GTÀ	75
278	Cvia	7.~~	C	C1		7. ~~	C1	Dro	Glu		71 ~~ ~	T 011	Lou	Clu	
280	Cys	Arg	Cys	СТУ	80	ALG	СТУ	FIO	GIU	85	Arg	пеп	neu	Giu	90
-	Tvr	Len	Ala	Met		Phe	Ala	Thr	Pro		Glu	Ala	Glu	Leu	
282	- 1 -				95	1110				100	0				105
	Arq	Arg	Ser	Leu	Ala	Gln	Asp	Ala	Pro	Pro	Leu	Pro	Val	Pro	Gly
284	-	,			110		-			115					120
285	Val	Leu	Leu	Lys	Glu	Phe	Thr	Val	Ser	Gly	Asn	Ile	Leu	Thr	Ile
286					125					130					135
	Arg	Leu	Thr	Ala	Ala	Asp	His	Arg	Gln		Gln	Leu	Ser	Ile	
288					140					145					150
	Ser	Cys	Leu	Gln		Leu	Ser	Leu	Leu		Trp	Ile	Thr	Gln	_
290		_			155	_		~ -	_	160	_	~ ·	~ 1	_	165
	Phe	Leu	Pro	Val		Leu	Ala	Gln	Pro		Ser	GLy	GIn	Arg	_
292					170					175					180

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/165,546D

DATE: 09/22/2003 TIME: 15:37:07

Input Set : A:\PTO.PG.txt

Output Set: N:\CRF4\09222003\I165546D.raw

L:3 M:220 C: Keyword misspelled or invalid format, [(i) APPLICANT:]

L:27 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]

L:28 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]

L:31 M:220 C: Keyword misspelled or invalid format, [(vii) PRIOR APPLICATION DATA:]

L:71 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1

L:84 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1

L:180 M:220 C: Keyword misspelled or invalid format, [(i) SEQUENCE CHARACTERISTICS:]